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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,315	11/10/2003	Sachin Doshi	884.A59US1	4452

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EXAMINER
PARK, ILWOO

ART UNIT	PAPER NUMBER
2182	

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/705,315	DOSHI ET AL.
	Examiner	Art Unit	
	Ilwoo Park	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>17 May 2006</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-32</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-32</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has

been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/17/2006

has been entered.

2.   Claims 1, 4, 11, 17, 19, 25, and 28 are amended in response to the last office

action.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1-6, 11-13, 17-23, 28, and 32 are rejected under 35 U.S.C. 102(e) as being

anticipated by Scifres et al. [US 2003/0225905 A1].

As for claim 1, Scifres et al teach a method, comprising:

controlling a data flow associated with at least one of a selected number of ports [subset

of identified usage devices 48 in paragraph 0032 and fig. 3] having a first actual value

above [flow volume 32 exceeding its corresponding volume limit 34 paragraph 0032 and

fig. 3] a determined average shared resource usage value [see determined volume limit

34 according to an average flow volume and a usage pattern for the flows 26 in

paragraph 0049] associated with the selected number of ports sharing a resource,

wherein the selected number of ports each use [subset of identified usage devices 48

exceeding its corresponding volume limit 34 paragraph 0032 in paragraph 0032 and fig.

3] an amount of the resource greater than a guaranteed minimum amount [usage

restricted above the volume limit 34 in paragraphs 0050, 0065 and fig. 6A] of the

resource.

5.   As for claim 2, Scifres et al teach determining an average shared resource usage

value [determining the volume limit in paragraph 0049].

6.   As for claim 3, Scifres et al teach a data flow being associated with a restricted

flow usage level, which is below the maximum flow usage level [see page 8, claim 1 and

paragraph 0048]. Therefore, the control step is removed once a portion of the flow rate is

allocated according to the selected restriction rules.

7.   As for claim 4, Scifres et al teach selecting the selected number of ports by

locating at least one port included in a plurality of ports using the amount of the resource

greater than the guaranteed minimum amount [identifying the subset of usage devices

having flows exceeding the volume limit in paragraph 0049]; determining a cumulative

shared usage value based on the selected number of ports; and determining the

determined average shared usage value by dividing the cumulative shared usage value

by the selected number of ports [equation (3) in paragraph 0049].

8.   As for claim 5, Scifres et al teach adjusting the selected number of ports to provide

a scaled selected number of ports based on a port speed associated with a first port and

a port speed associated with a second port, wherein the first port and the second port are included in the selected number of ports [usage limit selected form sets of volume limit and rate limit in paragraph 0012].

9.   As for claim 6, Scifres et al teach repeatedly determining the determined average shared resource usage value associated with the selected number of ports [repeating said computing, comparing, identifying, and associating steps in page 8, claims 1, 4, and 5].

10.   As for claim 11, Scifres et al teach a method for controlling a data flow. Accordingly, Scifres et al also teach an article comprising a machine-accessible medium having associated data, wherein the data, when accessed, results in a machine performing these steps. Therefore, the present claim is rejected under the same rationale.

11.   As for claims 12, 13, 17, and 18, Scifres et al also teach an article comprising a machine-accessible medium having associated data, wherein the data, when accessed, results in a machine performing these steps. Therefore, the present claim is rejected under the same rationale.

12.   As for claim 19, Scifres et al teach a method for controlling a data flow associated with at least one of a selected number of ports. Accordingly, Scifres et al also teach an apparatus for implementing the cited method. Therefore, the present claim is rejected under the same rationale.

13.   As for claims 20-22, Scifres et al also teach an apparatus for implementing the cited method. Therefore, the present claim is rejected under the same rationale.

14.   As for claim 23, Scifres et al teach a network processor [processing agent 22 in

fig. 3].

15.   As for claim 28, Scifres et al teach a method for controlling a data flow associated

with at least one of a selected number of ports. Accordingly, Scifres et al also teach a

system for implementing the cited method. Therefore, the present claim is rejected under

the same rationale.

16.   As for claim 32, Scifres et al teach a communications medium coupled to the

connector [fig. 1].

Claim Rejections - 35 USC § 103

17.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

18.   Claims 7-10, 14-16, 25-27, 30, and 31 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Scifres et al. [US 2003/0225905 A1] in view of Sato [US

6,009,078] in further view of Ruutu et al. [US 2003/0123392 A1].

As for claims 7 and 8, Scifres et al teach controlling a data flow [see Abstract, "flow

allocation"] associated with at least one of the selected number of ports. The reference

also teaches "repeatedly" performing the "computing, comparing, identifying, and

associating steps" [see Page 8, claim 5]. However, Scifres et al do not specify a dynamic

threshold value or setting this value as a sum of the determined average shared resource

usage value and a delta value. Regarding this limitation, Ruutu et al. teaches a dynamic

sharing mechanism [see Abstract] and sets a nominal capacity to each data flow and additional capacity is shifted from a first flow to a second flow. At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures in order to reduce the number of packet drops during congestion and improving network performance, as taught by Ruutu et al.

19.   As for claim 9, Scifres et al teach determining a value according to speed [see Page 5, paragraph 0049, "rate"] and overall usage value [see "usage pattern"]. However, this reference does not specify a delta value. Ruutu et al teach setting a nominal capacity to each data flow and shifting an additional capacity from a first flow to a second flow when its nominal capacity has been exceeded. This implements a dynamic buffer-sharing mechanism [see Abstract].

20.   As for claim 10, Scifres et al do not teach the resource as a memory. Ruutu et al teach a memory sharing mechanism [see Abstract]. At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures for the reasons stated above.

21.   As for claims 14-16, the combination of references also teaches an article comprising a machine-accessible medium having associated data, wherein the data, when accessed, results in a machine performing these steps. Therefore, the present claims are rejected under the same rationale.

22.   Regarding claim 25, Scifres et al teaches controlling a data flow [see Abstract, "flow allocation"] associated with a plurality of ports having reservation module coupled to the plurality of port to provide a minimum resource per port and to share a remaining resource among the plurality of ports using more than the minimum resource [e.g., fig.

8B], an average determination module to determine [see determined volume limit 34

according to an average flow volume and a usage pattern for the flows 26 in paragraph

0049] a determined average shared resource usage value greater [flow volume 32

exceeding its corresponding volume limit 34 paragraph 0032 and fig. 3] than the

minimum resource, and controlling module to control a data flow associated with at least

one [subset of identified usage devices 48 in paragraph 0032 and fig. 3] of the plurality of

ports having an actual usage value above the determined average shared resource

usage value [usage devices having flows exceeding the volume limit in paragraph 0049].

However, Scifres et al do not teach the resource is a memory having a transmit queue

storage and a plurality of ports coupled to it. Ruutu et al teach a buffer [memory] sharing

mechanism [see Abstract]. At the time of the invention, one of ordinary skill in the art

would have been motivated to combine the cited disclosures for the reasons stated

above.

23.   As for claims 26-27, the combination of references also teaches the apparatus for

implementing the method. Therefore, the present claims are rejected under the same

rationale.

24.   As for claims 30-31, the combination of references also teaches the system for

implementing the method. Therefore, the present claims are rejected under the same

rationale.

25.   Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scifres et

al. [US 2003/0225905 A1] in view of Liang [US 5,933,427 A].

As for claim 24, the Scifres et al reference teaches a network switch [paragraph

0040]; however, the Scifres et al reference does not explicitly teach the network switch is

a Layer 2 Ethernet switch. However, Liang teaches a Layer 2 Ethernet switch [see col. 2, lines 9-10]. At the time of the invention, one of ordinary skill in the art would have been motivated to modify the cited combination of disclosures in order to implement a common switch for a ubiquitous Ethernet LAN, as taught by Liang.

26.   Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scifres et al. [US 2003/0225905 A1] in view of Roberts [US 6,104,712 A].

As for claim 29, Scifres et al. reference does not teach an omni directional antenna to receive information included in the data flow. Regarding this limitation, Roberts teaches data flow received using omni directional antennas [see Figure 2]. At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures in order to implement wireless networks, as taught by Roberts.
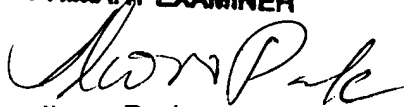
Response to Arguments

27.   Applicant's arguments filed 5/17/2006 have been fully considered but they are not persuasive. In the remarks, Applicant argues in substance that none of the cited reference teaches the selected number of ports each use an amount of the resource greater than a guaranteed minimum amount of the resource. For this point, Scifres et al teach a selected number of ports [subset of identified usage devices 48 exceeding its corresponding volume limit 34 paragraph 0032 in paragraph 0032 and fig. 3; grouping the usage devices into subsets in which each member of the subset has exceeded the usage limit in paragraph 0060] an amount of the resource greater than a guaranteed minimum amount [usage restricted above the volume limit 34 in paragraphs 0050, 0065 and fig. 6A].

Conclusion

28.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ilwoo Park whose telephone number is (571) 272-4155. The examiner can normally be reached on Monday through Friday from 9:00 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ILWOO PARK
PRIMARY EXAMINER

Ilwoo Park

August 1, 2006